Table 3.3-2. Current Water Quality Conditions and Trends in Zortman Mine Drainage Basins

Drainage	Area Summary	Station Type	Current Water Class.	Trends				Remarks
				pH	Alkalinity	Sulfate/SC	Metals	
Ruby Gulch	Mine Area/ Pits	Source	3	stable, low	stable, 0	sl + to +	stable to +	ARD is strong and may be approaching maturity.
	Lower Ruby Creek	Down-gradient	4/3/5	stable	stable	stable, + Lower Ruby	stable, low	Ruby Creek has episodic impacts, little effect on beneficial uses.
Alder Gulch	Alder Spur	Source	3	variable	variable	sl +	variable	Seasonal fluctuation/event driven changes in water quality evident.
	Carter Spur	Source	3	stable to sl -	stable, 0	+	+	
	Lower Alder Gulch	Down-gradient	2NM/2L	stable	stable	stable	stable	
Goslin Gulch	Goslin LAD Summary	Source	3	stable, low	stable, high	+	metals low, selenium elevated	Occasional impacts from nitrate, selenium, cyanide and salinity.
	Goslin Gulch below LAD Summary	Down-gradient	3	stable	stable, high	-2	metals low, selenium elevated, declining in 2000	Impacts from nitrate, selenium, cyanide and salinity, but decreasing trend in 2000.
Lodge-pole Creek	Upper Glory Hole	Source	1/3 - shallow 2NM-deeper	stable	stable	stable	stable, low	Spring LCSP-5 (Z-302).
	Upper Ross	Source	1/5, 2NM, 2NM/5	variable	stable	stable, var.	stable, low	Some elevated metals at LCSP-5 (zinc, iron, manganese; nitrates greater than 1.
	Lodgepole below Ross & Glory Hole	Down-gradient	2NM	stable, sl -	stable to sl -	stable to -	stable, low	Most metals are less than detection level at Z-64. Increases in metals appear to be event driven.
Beaver Creek	Headwaters	Down-gradient	1/2L	stable	sl -	stable, v. low sulfate	iron variable, other metals non-detectable	Mixture of headwaters and limestone background, iron up to 1.2 mg/l, but other metals non-detectable; non-detectable nitrate.

Current Conditions: 1=Headwaters Background; 2M=Mineralized Syenite Background; 2NM=Non-Mineralized Syenite Background; 2L=Limestone Background; 3=Mine/ARD Impacted; 4=Neutralized ARD; 5=Various Mine-Related Indicators. Trends: + increasing; - decreasing; sl=slight